GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:5544
ANSWERED ON:29.04.2003
FORECAST OF MONSOON
CHANDRA NATH SINGH;GADDE RAMAMOHAN;M.V.V.S MURTHI;NIVEDITA MANE

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether it is a fact that the Meteorological Department failed to forecast drought like conditions during the last year;

(b) if so, the reasons therefor;

(c) whether the Director General of the Indian Meteorological Department on16.4.2003 announced that rain fall during the south west monsoon would be below normal country-wide;

(d) if so, the reasons therefor and the reaction of the government thereto; and

(e) the steps taken by the Government on the observation of IMD?

Answer

MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI BACHI SINGH RAWAT)

(a) to (e) : A Statement is attached.

STATEMENT AS REFERRED IN REPLY TO PARTS (a) TO (e) OF LOK SABHA UNSTARRED QUESTION NO. 5544 DUE F
29.4.2003 REGARDING FORECAST OF MONSOON.

Since 1988, India Meteorological Department(IMD) has been issuing Long Range Forecast of Southwest Monsoon rainfall using a Statistical model that relates the rainfall with 16 antecedent parameters. Except in 2002, IMD`s long range monsoon forecasts were correct. Last year`s monsoon forecast given by the IMD had a deviation of 20% from the actual value.

The drought of 2002 was due to several anomalous features such as:

i) Presence of anomalous anticyclone flow descending motion over western parts of the country;

ii) Absence of monsoon depressions during the season as against the normal of 5-6 depressions per season;

iii) Feeble and short lived low pressure areas and trough;

iv) A weak monsoon trough which was located close to foothills of Himalayas for a long time in July;

v) Weak Cross equatorial flow in the Arabian Sea and the Bay of Bengal;
vi) Anomalous behaviour of the EI-Nino.

Yes, Sir. Based upon the newly adopted 8 -Parameter Power Regression Model, IMD`slong range forecast for the 2003 South-West Monsoon Season (June- September) is that the rainfall for the country as a whole is likely to be 96%of the Long Period Average (L.P.A) with a model error of + 5%.

For the 2003 South-West Monsoon Season for the country as a whole, the new 8-Parameter Probabilistic Model indicates;

21% probability of drought (rainfall less than 90% of LPA)
39% probability of below normal rainfall (90 to 97% of LPA)
14% probability of near normal rainfall (98 to 102% of LPA)
23% probability of above normal rainfall (103 to 110% of LPA)
3% probability of excess rainfall (more than 110% of LPA)

The Long Range Forecast issued by IMD onApril 16, 2003 is based upon the data upto March, 2003 in respect of eight atmosphere, land and ocean parameters used in the model .

Various government agencies have been apprised of the IMD forecast.